Montana Laboratory Sentinel

Updates from the MT Laboratory Services Bureau
800-821-7284 www.lab.hhs.mt.gov

08/06/2010

Bioterrorism Preparedness Training for LRN Sentinel Laboratories

The Montana Public Health Laboratory (MTPHL) presented an all-day training for 17 clinical microbiologists on July 30, 2010 at Carroll College in Helena. This workshop was designed to provide practical, hands-on training for clinical laboratory scientists to recognize critical agents of bioterrorism.

Kathy Martinka, Bioterrorism and Laboratory Preparedness Coordinator, reviewed the Laboratory Response Network (LRN) Sentinel Laboratory Protocols for presumptive identification and ruling-out suspect agents of bioterrorism. She outlined the process for referring suspect organisms to MTPHL for confirmatory testing and the courier service offered by MTPHL.

Kim Newman, Microbiologist at MTPHL, described the clinical presentation and biochemical characteristics of five agents of bioterrorism: *Bacillus anthracis, Brucella spp., Burkholderia spp., Francisella tularensis, and Yersinia pestis.* This training is particularly important to Montana microbiologists as these organisms occur naturally in our rural environment and could be encountered in normal clinical samples.

Crystal Poppler, Laboratory Training Coordinator, explained the safety implications of handling suspect bioterrorism organisms in clinical specimens and isolates. She reviewed the proper use of personal protective equipment (PPE) and provided several biosafety resources for the participants to use in their laboratories.

Laboratory demonstrations provided an opportunity to observe non-virulent strains of the bacteria growing on a variety of culture media, gram stains, and their biochemical characteristics. Questions? Email Kathy Martinka at kmartinka@mt.gov

Campylobacter jejuni, USDA

Campylobacter bacteria cause an infectious disease called Campylobacteriosis. Most people who become ill with campylobacteriosis get diarrhea, cramping, abdominal pain, and sometimes fever within two to five days after exposure to the organism. However, onset can occur as early as one day and as late as ten days after exposure.

The diarrhea may be bloody and can be accompanied by nausea and vomiting. The illness typically lasts one week. In persons with compromised immune systems, *Campylobacter* occasionally spreads to the bloodstream and causes a serious life-threatening infection.

See related information about an outbreak in the Communicable Disease Update below

"I feel that the greatest reward for doing is the opportunity to do more."

Dr. Jonas Salk

Rapid Point-of-Care Bilirubin Test for Newborns

The U.S. Food and Drug Administration has granted 510(k) clearance to market the first-ever, rapid point-of-care, laboratory-quality blood test for measuring total bilirubin in newborns (tBili assay; Instrumentation Laboratory). Performed on the company's automated GEM Premier 4000 critical care analyzer, the total bilirubin assay provides on-the-spot results in 90 seconds, avoiding the hour-long wait for results from a laboratory using traditional chemistry methods. **Medscape Medical News** **MORE**

Celiac Disease Diagnosis up 4-fold Worldwide

Studies from the United States, Europe, and elsewhere indicate that the prevalence of celiac disease (CD) has increased significantly in the last three decades — possibly by as much as a factor of 4. "More and more studies indicate a prevalence of CD of more than 1 percent in both adults and children. This should be compared with lower prevalence figures [from] 20 to 30 years ago," said Jonas Ludvigsson, MD, from the Karolinska Institute and Orebro University Hospital, Sweden, and an expert in CD.
Medscape Medical News **MORE**

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Salmonella from Undercooked Eggs in Rattlesnake Cakes

An interesting article from *ProMED*

The Fort restaurant in Jefferson County, Colorado, where world leaders dined with President Bill Clinton during the G7 Summit in 1997, is the source of a recent salmonella outbreak.

County Health Investigators reported 8 confirmed cases and 20 probable cases in which people became ill after dining at the well-known restaurant in the Rocky Mountain foothills.

The July outbreak was triggered by dishes, including rattlesnake cakes, that included (undercooked) eggs. The restaurant specializes in wild game and Old West recipes. <http://www.promedmail.org>
<http://www.denverpost.com/headlines/ci_15679320>

Multi-target PCR for Pertussis Diagnoses

California is seeing its largest outbreak of pertussis in over 50 years. According to media reports, above-average incidence has been reported in at least 12 other states since the beginning of July. CDC and APHL would like to remind laboratories to use a multi-target PCR for pertussis diagnostics to help eliminate false positive test results, especially in the absence of confirmatory culture testing, which is still considered to be the gold standard. The CDC has developed a multi-target, real-time PCR assay for pertussis identification. Interested laboratories can consult CDC for assistance in bringing up the assay. Laboratories are encouraged to print and share a recent brochure on pertussis diagnostics,

"Frequently Asked Questions." For more information regarding pertussis testing, contact Travis Jobe at travis.jobe@aphl.org or visit CDC's website.

IMMUNIZATION FOR ADOLESCENTS: BARRIERS REPORTED BY PHYSICIANS

Adolescence, the boundary between childhood and adulthood, is a time when most threats to health are related to behavior choices. Still, some important protection can be provided by vaccination for youth during this time of growth and experiment. However, adolescent immunization rates are low and many young persons have not received one or more of the recommended vaccines. In order to identify barriers to vaccination perceived by Montana physicians who provide care for adolescents, the Immunization Section conducted a survey. The questions used were adopted from a national survey conducted in 1999.

This issue of *Montana Public Health* highlights the barriers reported by Montana physicians and offers recommendations to increase adolescent immunization rates.

Below is the link for the ***Montana Public Health Prevention Opportunities Under the Big Sky Newsletter*** - July issue:
http://www.dphhs.mt.gov/PHSD/prevention_opps/MT-PH-prevent-opps-newsletters.shtml

MT Communicable Disease Update Weeks 29 Ending 07/24/10

This newsletter is produced by the Montana Communicable Disease Epidemiology Program.
Questions regarding its content should be directed to 406.444.0273 (24/7/365).
http://cdepi.hhs.mt.gov

Summary – MMWR Week 29 - Ending 7/24/10 – Disease reports received at DPHHS during the reporting period July 18th through July 24th, 2010 included the following:

- Vaccine Preventable Diseases: varicella (1)
- Invasive Disease: none
- Enteric Diseases: campylobacteriosis (9), giardiasis (1), salmonellosis (3)
- Other Conditions: viral meningitis (3), aseptic meningitis (1)
- Animal Rabies: Bats (2)
- Travel Related Conditions: none

Campylobacter Outbreak **-** The Montana Department of Public Health and Human Services (DPHHS) together with the MT Department of Environmental Quality (DEQ) and local public health officials are continuing to investigate a recent outbreak of campylobacteriosis in visitors to an eating and camping establishment in the Hebgen Lake area of Gallatin County. The portion of this establishment that serves food and water to the public is not currently operating; however, the camp ground has remained open. Water sources in the camp ground available for human consumption are being chlorinated, and a boil order is in effect. Public health authorities and the MT DEQ are working with establishment proprietors to permanently eliminate the contaminated source from public consumption. Active surveillance for campylobacteriosis cases that may be associated with water consumption from the Hebgen Lake area is continuing. Please collect exposure histories on all campylobacteriosis cases occurring after July 27, 2010, and forward exposure information to your local health department or the DPHHS Communicable Disease Epidemiology Program.

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West Nile Virus - To date there have been no confirmed reports of WNV activity in humans, horses, or mosquito pools. July and August have traditionally been the months where we start seeing WNV activity in Montana and all health care providers are strongly encouraged to consider WNV testing in patients with symptoms of neuro-invasive disease where no other causative agent has been identified.

NEW!

Influenza surveillance - The Centers for Disease Control and Prevention (CDC) is urging healthcare providers to be on the alert for influenza cases, following the reporting of two small outbreaks of influenza A/H3N2 in Iowa and scattered H3N2 cases in 11 other states. Sporadic cases and localized outbreaks of flu are detected every summer. On the basis of hemagglutinin gene sequencing of four isolates so far, the CDC said, the viruses are expected to be similar to A/Perth/16/2009-like H3N2 viruses, a strain that's included in this year's vaccine. Clinicians should consider influenza as a possible diagnosis in patients with acute respiratory illnesses, including pneumonia and send specimens for PCR testing to the Montana Public Health Laboratory.
For more information: http://www.dphhs.mt.gov/PHSD/ph-informatics/documents/CDCHealthAdvisory00316_SeasonalInfluenzaAH3N2.pdf

NEW!

ACIP recommendations for influenza vaccination. The CDC has released the 2010-2011 ACIP recommendations for influenza vaccination. It is recommended that vaccine be given as soon as it becomes available, which will be in a few weeks.

To view a summary of the recommendations visit: http://www.medscape.com/viewarticle/726213

To view the ACIP guidelines visit: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr59e0729a1.htm?s_cid=rr59e0729a1_w

REMINDER!

Recreational Water Illnesses (RWIs): Now that the weather has warmed-up many Montanans are relaxing in our local water sources to cool off. This increased exposure to water also increases the risk of acquiring a recreational water illness. RWIs are caused by germs spread by swallowing, breathing in mists or aerosols of, or having contact with contaminated water in swimming pools, hot tubs, water parks, water play areas, interactive fountains, lakes, rivers, or oceans. RWIs can be a wide variety infections, including gastrointestinal, skin, ear, respiratory, eye, neurologic, and wound infections. The most commonly reported RWI is diarrhea. Diarrheal illnesses can be caused by germs such as Crypto (short for *Cryptosporidium*), *Giardia*, *Shigella*, norovirus, enterovirus, and *E. coli* O157:H7.
It is important for all of our residents and visitors to learn the Six Steps for Healthy Swimming to keep themselves and others healthy:

Six Steps for Healthy Swimming

Three Steps for All Swimmers

Keep germs from causing recreational water illnesses (RWIs):

- Don't swim when you have diarrhea. You can spread germs in the water and make other people sick.
- Don't swallow the pool water. Avoid getting water in your mouth.
- Practice good hygiene. Shower with soap before swimming and wash your hands after using the toilet or changing diapers. Germs on your body end up in the water.

Three Steps for Parents of Young Kids: Keep germs out of the pool:

- Take your kids on bathroom breaks or check diapers often. Waiting to hear "I have to go" may mean that it's too late.
- Change diapers in a bathroom or a diaper-changing area and not at poolside. Germs can spread in and around the pool.
- Wash your child thoroughly (especially the rear end) with soap and water before swimming. Invisible amounts of fecal matter can end up in the pool.

CDC's Healthy Swimming program offers information and resources to raise awareness about RWIs and how to prevent them.
For more information on recreational water illnesses, including brochures, posters, and educational materials, please see the Centers for Disease Control and Prevention's website: http://www.cdc.gov/healthywater/swimming/rwi/rwi-prevent.html